

REMARKS/ARGUMENTS

Applicants received the Office Action dated November 13, 2006, in which the Examiner: 1) rejected claims 27-31 and 34 under 35 U.S.C. § 102(e) as anticipated by Edlund et al. (U.S. Pub. No. 2002/0114984, hereinafter “Edlund”); and 2) rejected claims 36-38, 40 and 43 under 35 U.S.C. § 103(a) as obvious over Edlund; and 3) rejected claims 32 and 41 as obvious over Edlund in view of LaPierre et al. (U.S. Pat. No. 6,348,278, hereinafter “LaPierre”). With this Response, Applicants amend claims 27 and 36.

Claim 27 requires a structure that that “heats said fuel cell stack by promoting an exothermic reaction using hydrogen from said hydrogen storage unit.” The Examiner noted that Edlund discloses metal hydride beds that desorb the gas at elevated temperatures. Edlund, however, does not teach or even suggest using heat to heat the fuel cell stack. Further, Edlund does not teach or suggest using heat generated from an exothermic reaction involving hydrogen to heat the fuel cell stack. Edlund is directed to proton exchange membrane (PEM) and alkaline types of fuel cells. Para. [0023]. Unlike solid oxide fuel cells, the types of fuel cells disclosed in Edlund need not be substantially heated for the fuel cell to operate. Accordingly, Edlund does not disclose a mechanism or even a desire to heat fuel cells during a start up process. Thus, although Edlund refers to metal hydride beds, Edlund does not teach or suggesting a metal hydride bed to generate heat for heating the fuel cell stack. No other art of record satisfies this deficiency of Edlund. For at least this reason, claim 27 is allowable.

The Examiner construed the limitation in claim 27 “wherein heat from the exothermic reaction heats said fuel cell stack to speed up fuel cell startup” as a process limitation, not as a structural limitation. Applicants amend claim 27 to address the Examiner’s observation.

With regard to claim 36, the Examiner alleged that the phrase “to speed up fuel cell startup” is not a structural limitation. Applicants amend claim 37 to refer to a means for heating said fuel cell stack “and for speeding up fuel cell startup.” As the Examiner is no doubt aware, this limitation is written in a “means plus function” format pursuant to 35 U.S.C. § 112, sixth paragraph. As such, this

**Appl. No. 10/629,066
Amdt. dated February 13, 2007
Reply to Office Action of November 13, 2006**

limitation comprises the structure (and equivalent structure) disclosed in the specification for performing the claimed functions.

Claim 36 requires a means for heating the fuel cell stack and for speeding up fuel cell startup. No structure is disclosed in Edlund that performs these functions. No other art of record satisfies this deficiency of Edlund. For at least this reason, claim 36 and all claims dependent thereon are allowable over Edlund.

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's Deposit Account No. 08-2025.

Respectfully submitted,



Jonathan M. Harris
PTO Reg. No. 44,144
CONLEY ROSE, P.C.
(713) 238-8000 (Phone)
(713) 238-8008 (Fax)
ATTORNEY FOR APPLICANTS

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
Legal Dept., M/S 35
P.O. Box 272400
Fort Collins, CO 80527-2400